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ABSTRACT

The authors investigated the development of a model for a State education agency facilities planning unit, which would be adaptable to a variety of situations in the various States. The effort focused on (1) the services to be provided, (2) the internal organizational pattern, and (3) the internal staffing pattern. Attention was also given to the legislative authorization providing for such State facilities planning units. The first phase of the study involved a review of the literature pertaining to the services provided by State education agency facilities planning units as well as the literature pertaining to theories and principles of organizational patterns. Case studies of facilities planning units in the States of California, Florida, Minnesota, North Carolina, and Washington provided another source of information. A preliminary model for a State education agency facilities planning unit was then constructed and presented for refinement and approval to a jury of State educational facilities planners. The model provides for both regulatory and leadership services, but emphasizes leadership services. It also includes organization and staffing patterns, based on a functional division of work of recommended services. (Author/MLF)

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STATE EDUCATION AGENCY

FACILITY PLANNING SERVICES

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TABLE OF CONTENTS

	PAGE
THE PROBLEM	1
DEVELOPMENT OF THE PRELIMINARY MODEL	6
A RECOMMENDED MODEL FOR STATE EDUCATIONAL FACILITIES PLANNING SERVICES	8
Rationale for the Model	9
Facilities Planning Services	14
Organization of the Model	18
Staffing the Model	22
CONCLUSIONS	24
BIBLIOGRAPHY	27
APPENDIX: SUMMARY OF LEGAL AUTHORIZATION AND FACILITIES PLANNING SERVICES PROVIDED BY THE STATE EDUCATION AGENCIES OF CALIFORNIA, FLORIDA, MINNESOTA, NORTH CAROLINA, AND WASHINGTON	31
California	32
Florida	35
Minnesota	38
North Carolina	41
Washington	45

LIST OF FIGURES

FIGURE		PAGE
1.	A Classification of Facilities Services----------	11
2.	Recommended Organization for Facilities Planning----------	20
3.	Organization Chart of the Bureau of School Planning, California State Department of Education----------	36
4.	Organization Chart of the Division of School Facilities, Florida State Department of Education----------	39
5.	Organization Chart of the School Facilities Planning Section, Minnesota State Department of Education----------	42
6.	Organization Chart of the Division of School Planning, North Carolina State Department of Education----------	46
7.	Organization Chart of the Facilities and Organization Section, Washington State Department of Education----------	50

FOREWORD

It was the purpose of this investigation to develop a model for a state education agency facilities planning unit which would be adaptable to the variety of situations in the various states. The effort focused on three elements of such a unit: (1) the services to be provided, (2) the internal organizational pattern, and (3) the internal staffing pattern. Attention was also given to the legislative authorization providing for such state facilities planning units.

The study consisted of three major phases. The first involved consideration of the literature pertaining to the services provided by state education agency facilities planning units, and the literature pertaining to theories and principles of organizational patterns. Having gathered this information, facilities planning units in the states of California, Florida, Minnesota, North Carolina, and Washington were asked to participate in the study.

Case studies completed on each of the five states included the following information: (1) the legislation which authorized the unit, (2) the services provided by the unit, (3) the organizational pattern utilized within the unit, and (4) the staffing pattern of the unit.

From these two major sources of information, a preliminary model for a state education agency facilities planning unit was constructed. It was presented to a jury, consisting of state educational facilities planners, for refinement and approval. The model developed from these sources provided for both regulatory and leadership services, but emphasized leadership services. It also included organization and staffing patterns, based on a functional division of work of recommended services.

As with any such undertaking, many individuals without whose assistance this task could not have been accomplished, are due recognition. No attempt can be successful in naming all those persons whose assistance in the development of this study contributed to the worth of the final product. Appreciation and thanks is expressed to all deserving of such recognition.

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THE PROBLEM

Educational facilities constitute a primary element of the media contributing to the educational experience. Numerous factors, including planning, design and maintenance, influence the effectiveness of the facility's contribution to the educational process. Facilities can enhance or restrict this process. In recent years the influence of the facility has received new emphasis, corresponding with the development of new curricular patterns.

The evolution of less restricting facilities is the result of concentrated and comprehensive planning efforts.[1] In spite of the fact that this need for prudent planning has long been recognized, as evidenced by the numerous books and journals devoted to improving the quality of facilities, too little has been accomplished at the local level. As Boles wrote recently, "... in project after project school administrators pay lip service to some of the principles involved in proper planning, only to violate those or others in practice."[2]

If the facilities planned and built in the future are to be a positive force in the educational process, concentrated planning efforts are essential. We can no longer allow, for example, the town octogenarian's knowledge of who owns what and who will sell to determine school site locations. Such planning procedures are both a detriment to the educational program and needlessly expensive.[3]

Over five billion dollars are being spent annually to provide additional facilities at all levels of education.[4] Projections indicate that the

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[1]Educational Facilities Laboratories, The Cost of a Schoolhouse (New York: Educational Facilities Laboratories, 1960), p. 44.

[2]Harold Boles, Step by Step to Better School Facilities (New York: Holt, Rinehart and Winston, 1965), p. vii.

[3]Educational Facilities Laboratories, op. cit., p. 49.

[4]F. W. Dodge Economic Department, F. W. Dodge Construction Outlook 1968 (New York: McGraw-Hill, Inc., 1967), p. 15.

need for classrooms will contique at approximately the current rate, in spite of a declining birth rate.[5] A number of factors account for this, the most important being the growing need to replace inadequate facilities.

It is apparent that informed leadership must be provided in planning facilities if they are to be truly functional. The bulk of the responsibility for such planning has traditionally rested with the local educational agency. Unfortunately, few of them are capable of or have committed themselves to staffing sufficiently qualified personnel to accomplish this.[6]

A variety of resources are available to aid the local district in planning for educational facilities needs. Among these are the respective state departments of education. In some instances, state education agency personnel serve as educational consultants to local school districts and participate in practically all aspects of the planning process. Some state agencies, however, perform only specific regulatory functions and do not assist in the planning process.[7]

In the United States education has been established as a function of the several states. The Constitution of the United States, through its silence regarding education and the provisions of the Tenth Amendment, assigned this responsibility to the states. That the responsibility has been accepted by the states is illustrated by provisions of state constitutions, through state statutory practices and judicial review. Except in instances where educational practices may violate the Constitution of the United States, the states do have the responsibility and authority to develop public school programs.

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[5]Kenneth A. Simon and Marie G. Fullam, Projections of Educational Statistics to 1975-76 (Washington: U. S. Office of Education, Government Printing Office, 1966). pp. 79-81.

[6]Wallace H. Strevell and Arvid J. Burke, Administration of the School Building Program (New York: McGraw-Hill Book Co., 1959), p. v.

[7]National Council on Schoolhouse Construction, NCSC Guide for Planning School Plants (East Lansing, Michigan: National Council on Schoolhouse Construction, 1964), p. 5.

Although the states do have the power and responsibility for public education within their boundaries, they have generally delegated much educational responsibility to the local community through their subordinate agency, the local school board. The states, however, have long ago decided that no school district has the right to provide a grossly inferior educational program. The educational facilities program has been regarded as one of the areas in which controls, services, and leadership are needed at the state level, since school facilities play an important part in pupil protection and education.[8]

State departments have carried out this responsibility through consultants and facilities planning units.[9] Barrows found in 1940 that 22 states had work units in their state departments of education that were responsible for facilities services, and that eight states made no provision for personnel responsible for facilities services.[10] By 1956, 38 states had work units whose primary responsibilities were facilities services. At this time all states had designated this responsibility to a unit or person. In only two states was less than one man-month a year devoted to such responsibilities.[11] The number of such facilities planning units has continued to grow, until in 1963, Hutcheson reported that 41 states had facilities planning units.[12]

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[8]The Council of Chief State School Officers, The Responsibilities of State Departments of Education for Pupil Transportation Services and School Plant Services (Washington: The Council, 1958), p. 44.

[9]N. E. Viles and Ray L. Hamon, State School Plant Services (Washington: U. S. Office of Education, Government Printing Office, 1956), p. 32.

[10]Alice Barrows, Assistance on School Plant Problems as a Function of State Departments of Education, Bulletin 1940, No. 6 (Washington: U. S. Office of Education, Government Printing Office, 1941), p. 1.

[11]Viles and Hamon, op. cit., pp. 28-29.

[12]David Hutcheson, "State School Plant Services" (unpublished doctoral thesis, University of Nebraska, Lincoln, 1962), p. 238.

It is through such facilities planning units that the states have provided services and leadership in the educational facilities area. Local school officials do desire and use such services. In a study conducted by the Midwestern Administration Center, it was found that local school administrators considered problems in the area of buildings and grounds one of the primary areas in which they needed help from state departments of education.[13] The same study revealed that state department consultants were asked to assist with buildings and grounds problems more frequently than all areas except finance and teacher recruitment-training. To assess the usefulness of such services, Hummel in 1962 conducted a study among architects in California to determine whom they found most helpful in educational planning associated with new educational facilities construction. The architects ranked the sources in the following order of helpfulness: (1) school superintendents, (2) state department of education consultants--facilities specialists, (3) principals, (4) teachers, (5) educational consultants, (6) board members, and (7) fellow architects.[14]

Authorities report that a need exists for leadership and services in the educational facilities field, particularly as related to facilities planning. Complex factors are making facilities planning, especially the educational planning that needs to be associated with construction of new facilities, an area of unique opportunity. The challenges of new curricular patterns, new technology, a growing commitment to education as an investment, changes in school organization--these and more--establish a need for highly qualified assistance. Morphet and others summarized the challenges and opportunities well when

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[13]Lee M. Thurston and William H. Roe, State School Administration (New York: Harper and Brothers, 1957), p. 172, citing Cooperative Program in Educational Administration financed by the W. K. Kellogg Foundation, Educational Consultants and Their Work in Midwestern State Departments of Education (Chicago: Midwestern Administrative Center, September, 1952).

[14]Robert E. Hummel, "Who Does the Educational Planning for Your Schools?", American School Board Journal (March, 1962), pp. 32-35.

they wrote:

> . . . schoolmen confronted with the need for new plants are facing the most difficult problem of their careers--difficult because many of the old forms are weakened, if not broken, while the new have not been institutionalized; difficult because the results may be more affected by their knowledge and vision, or lack thereof, than in any recent period.[15]

An an integral part of the educational enterprise and an accepted responsibility of state education agencies, the facilities planning program is challenged by the following charge of R. L. Johns:

> International and national conditions make it more imperative than ever before that all 50 state departments of education provide agressive and competent professional and political leadership for educational decision making. Few, if any state departments of education, are now adequately staffed to provide the leadership and administrative functions required of them. [Thus] there is a need for improving the administrative, supervisory, and leadership services for education at all levels--federal, state, and local--but at this particular time, the most critical need . . . is at the state level.[16]

State departments of education historically have had the responsibility for public education. Part of that responsibility has included an educational facilities program designed to provide safe and functional

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[15]Edgar L. Morphet, Roe L. Johns, and Theodore L. Reller, Educational Organization and Administration (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1967), p. 439.

[16]Roe L. Johns, "State Organization and Responsibilities for Education," Implications for Education of Prospective Changes in Society, Edgar L. Morphet and Charles O. Ryan, editors (Designing Education for the Future; Denver, Colorado: Brandford-Robinson Printing Company, January, 1967), p. 255.

buildings through controls, services, and leadership. With a few significant exceptions, the facilities programs have been inadequate. Recent developments in education have increased the need for a more adequate facilities planning program at the state level.

DEVELOPMENT OF THE PRELIMINARY MODEL

The preliminary model for a state education agency facilities planning section was based on a review of pertinent literature and information gleaned from case studies of facilities planning sections in California, Florida, Minnesota, North Carolina, and Washington. As the model represents the conclusions of the investigator, from the above sources, no attempt was made to document the sources contributing to these conclusions. In some instances the influences are identifiable, while in others the conclusions represent no specific source(s), rather a judgment based on the entire body of information gathered for this investigation. The term model is not intended to convey the idea that this investigation represented a solution to be emulated by all states in their facilities planning units. It represents a guide that may be adapted to a state's circumstances and needs.

The review of the literature performed two major functions in the process of constructing the preliminary model. First, it reported information that contributed significantly to the content and structure of the preliminary model, particularly in the organization aspect of the model. Secondly, the literature provided the foundation on which the case study questionnaire was formulated, and thus controlled the information sought and reported in the case studies of the five participating states.

The participating states were selected to meet the following criteria: (1) states with functioning facilities planning sections, (2) states representing a geographic distribution within the United States, (3) states whose facilities planning units were representative of both the large and small existing units, and (4) states whose facilities planning services included some of those selected as desirable facilities planning services at a recent meeting of the Interstate

School Building Service at Peabody College, Nashville, Tennessee.[17]

Eleven preliminary conclusions made a major contribution to the model. They provided the rationale for the services, organization, and the staffing patterns developed within the preliminary model. These conclusions were an extension of the basic assumptions of this investigation and represented the conclusions of the investigators based on the universe of information from the study's various sources.

Based on the preliminary conclusions, suggested facilities services were categorized into regulatory and leadership services. Leadership services, in the context of this investigation, were described as services other than those required by regulation that would contribute to improved educational facilities.

The organization suggested by the preliminary conclusions and the selected principles of organization was established on the basis of functions to be performed. The individual units lose their identity when the staff become involved in the facilities planning process.

Staffing patterns of the preliminary model define the personnel required to achieve the organizational objectives, as outlined in the preliminary conclusions. Specific abilities, required by division of work by function, and common skills, required by the consultative team concept, were developed within the respective position descriptions.

The preliminary model was then presented to the jury at the Sixth Annual Conference of the National Association of State Directors of Educational Plant Services, October 5-7, 1968, in Washington, D. C. The jury consisted of the Association's membership that was in attendance.

Prior to the conference, each state and territorial representative to the Association received a copy of the preliminary model.

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[17]Interstate School Building Services, "Suggestions for Organizing and Staffing State School Plant Planning Services," A report prepared by Committee III (Nashville: Interstate School Building Services Meeting, August 23-25, 1966). (Mimeographed.)

The audio-slide presentation at the conference dealt with preliminary conclusions of the model, and established a relationship and effect for the remainder of the model. Following a question and answer period, each of the conference participants was asked to react to the model on a brief "response form." It also provided opportunity for narrative reactions and comments relative to the entire model. These comments indicated areas of concern and, through these reactions, the respondents suggested areas of the preliminary model that needed additional clarification. From this was developed the model to serve as a guide for state educational facilities planning services which state departments of education shall provide to local school districts within the state.

A RECOMMENDED MODEL FOR STATE EDUCATIONAL FACILITIES PLANNING SERVICES

The model consists of eleven conclusions, which function as the rationale from which services, organization, and staffing patterns were developed. These conclusions built upon and extended beyond the basic assumptions of this investigation. Because of this relationship those basic assumptions are presented:

1. The educational facility does influence the program contained within it.

2. State departments of education should play an increasingly important role in education based on a creative and progressive contribution.

3. Many local districts are unable to employ adequate staff for facilities planning.

4. Certain basic services in facilities planning should be available to local districts from state agencies designated for this purpose.

5. Principles of formal organization are generally applicable to all forms and at all levels of organization, even though the goals and environment of such organizations may differ considerably.

Rationale for the Model

Eleven conclusions were developed which provide the rationale for the remainder of the model. They are as follows:

1. The state education agency is an educational force that should assure educationally functional facilities within its boundaries. The state is the legally responsible agency for education within its borders and has the responsibility to make provision for educational facilities. Because of this responsibility and since existing schools exhibit a need for more functional facilities, state department personnel should become more involved, not less involved, in the process of planning facilities.

2. Minimal state regulation is essential to the provision of adequate educational facilities. To make the required educational facilities planning contribution, the state must exert certain regulatory controls over the planning of such facilities. The controls should assure the safety of the occupants and are necessary to prevent the construction of structurally unsafe and inadequate buildings. Generally, they should be flexible and as few in number as possible, that they might encourage new facilities concepts to complement changes in education.

In addition to the regulations protecting the safety of occupants in any school facility, the state should exert limited control over the local planning process. A suitable planning process will assure that both system-wide comprehensive planning and educational specifications planning are completed prior to any facility construction. All decisions within the province of the planning process ought to be controlled by local authorities to encourage the development of educational facilities that will be functional at occupancy.

3. A general classification of services should be identified, to which priorities may be assigned, to suggest direction for the facilities planning services that will be provided by the state agency. Such a classification of services will function as an organizer, within which the actual services will develop. The priorities assigned will exert influence on the types and purposes of the facilities planning services proposed in program planning by the state education agency.

The classification selected by this study consists of two complementary categorizations of services, each supporting the other. The basic classification of services is by (1) regulatory functions and (2) leadership functions. Each of these is further refined through the subfunctions of: (1) educational excellence, (2) safety of occupants, and (3) protection of public investment. Selected state facilities planning services ought to be directed to each of these functions. However, there is to be a difference in the degree of emphasis and priority each receives.

Certain regulatory functions are inherent in facilities planning services, and they will be directed toward educational excellence, the safety of occupants, and protection of public investment. However, regulatory services should be directed predominantly toward the safety of occupants. Leadership services will relate to each of these functions, with priority given to educational excellence.

Figure 1 clarifies interrelationships within this classification system. It illustrates the desired relationship between regulatory and leadership functions. Certain regulatory functions are essential to the provision of functional educational facilities, but in terms of total commitment and growth, leadership functions must receive a higher priority. Thus, facilities planning sections should emphasize growth in leadership functions while maintaining minimal required regulatory functions.

This illustration also suggests desired relationships between the three subfunctions, and that the commitment and priority be given to educational excellence. While not intending to indicate specific degrees of commitment, the illustration purposely implies that the educational excellence subfunction should receive dramatic emphasis over the subfunctions of safety of occupants and protection of public investment.

4. Services provided by the facilities planning section should relate to and center around the planning process. The process must be one that emphasizes involvement and decision-making at the local level. While all three levels of services will be involved, the services complementing this process most effectively are those identified earlier as leadership services. Two facilities planning emphases should exist, long-range planning and specific facilities planning. This process will be applied to a range of efforts within these two planning areas, from involvement in total community planning to

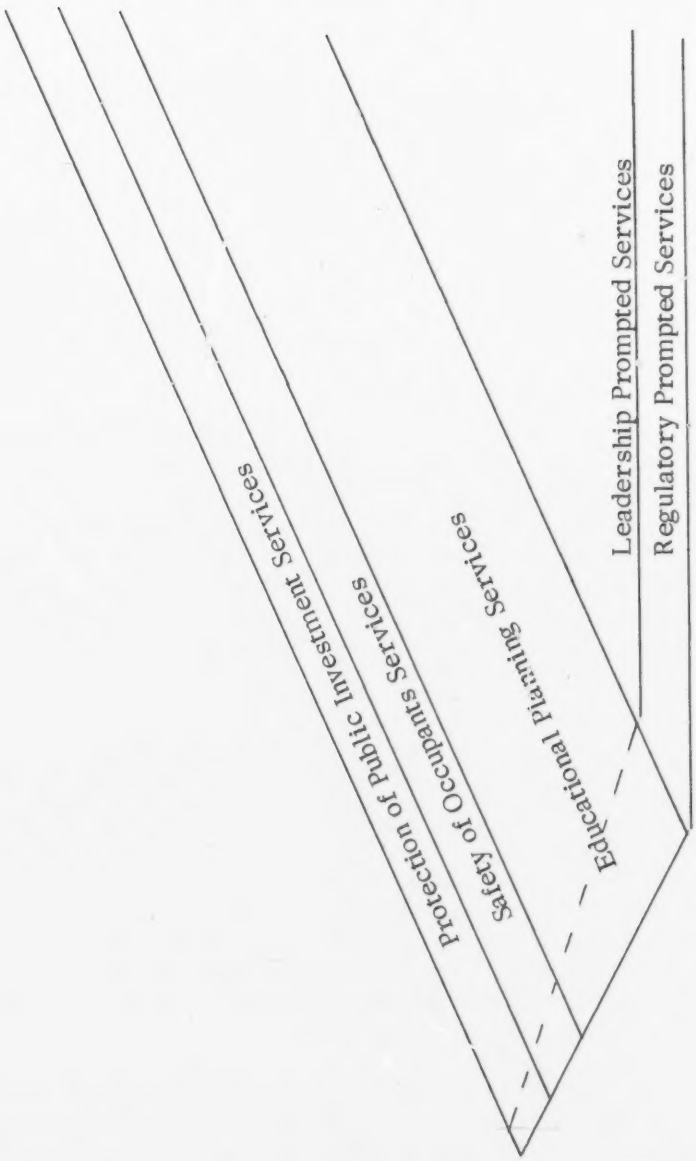

FIGURE 1

A CLASSIFICATION OF FACILITIES SERVICES

planning for specific educational facilities and evaluating their functional adequacy in use.

5. Any planning that deals with educational facilities must be executed within the context of the total community. It is unrealistic for educational facilities planning to take place in isolation from the community and its interests. Educational planning needs to be a cooperative community planning effort that coordinates and compromises such interests as business, religion, finance, transportation, health, welfare, recreation, aesthetic, government, housing, and others. Planning services provided by a state agency educational facilities planning section should promote and foster efforts that bring community interests to bear on educational facilities planning.

6. The major element in educational planning for a specific facility is comprehensive curriculum planning. A functional facility is the result of interpreting the needs of a curriculum into physical spaces. The planning services provided by a facilities planning section must make provision for program identification and development, including both its immediate and long-range elements. This is the primary assumption on which educational specifications are based and should be the most consuming planning activity related to written educational specifications.

7. State education agency facilities planning personnel must function in a consultative capacity. This concept requires that state facilities planning personnel be capable of organizing and coordinating a planning effort. Their function is to operate within the local district, as an extension of the local administration, to guide the process through the appropriate phases and to provide the local planning personnel with the necessary contacts and resource personnel to assist in program planning. Only in unusual circumstances might state agency personnel be responsible for decision-making within and the execution of the planning process.

This concept is not in opposition to the regulatory role personnel will also need to assume. The intent is to emphasize establishing the proper relationships between state personnel and local authorities.

A consulting capacity suggests an additional responsibility of state facilities planning personnel, that of education. State facilities planning personnel must be competent in the organization and coordination of the planning process, in curriculum theory, and have a knowledge of educational facilities. As consultants, state personnel must also be informed about innovative facilities if they are to carry out their leadership responsibility to local school districts.

8. Facilities planning personnel must be aware of and should make extensive use of facilities planning expertise, wherever it is found. It is necessary that state agency facilities planning personnel be cognizant of expertise, public and private, that may contribute in the process of facilities planning and encourage its use. The state consultant must be able to identify such individuals in various enterprises and assist the local district to coordinate their efforts in the planning process. It is very probable that many of these personnel resources will not be employees of the state education agency. The section should not attempt to duplicate existing expertise, but make use of all available resources, wherever they may be found. This is an integral function of the consultant concept presented in these conclusions.

9. Facilities planning services provided by a state education agency should include follow-up and evaluative services. The obligation of the state facilities consultant does not end with the educational specifications for a facility if the new plant is to be truly functional. He must provide for the interpretation of the design concepts to the staff and subsequent training necessary for its appropriate use. After the building has been in use, he should also provide for an evaluation to determine if it is contributing to the educational program it houses. Such an evaluation should be made primarily by those using the facility, both in terms of the educational program conceived during planning and any changes in that program since occupancy.

The process used to arrive at the design of a facility should also be regularly reviewed. A meaningful evaluation of the process can take place particularly where the resulting facility has not met expectations. A careful examination of the process in such cases may reveal weaknesses which need to be revised or eliminated.

10. The state educational facilities planning section should avoid responsibilities that are not directly related to the functional planning processes. Within the framework of the state education agency organization, facilities planning personnel will find it desirable to avoid direct responsibility for the administration of fiscal programs or other unrelated programs, such as transportation. This does not mean facilities planning personnel would not assist local districts identify and obtain financial resources to fund new facilities. The primary criterion is their relatedness to the planning process; if the presence of such services do not measurably effect the process or the completed facility, those services are considered not essential to the facilities planning section. For example, administration of fiscal programs is not considered to be a function of facilities planning sections, but planning for obtaining necessary funding is considered to be within the province of facility planners within the state agency.

Where a program of fiscal support for educational facilities construction provides a major source of the section's authority and responsibility, personnel must take considerable care to avoid dominating both the planning process and the subsequent approval of applications for financial support. This is essential if the section is to function as an agency emphasizing leadership and service versus regulatory control.

11. Maintenance and operations services should be provided by personnel in the facilities planning section. The maintenance and operations function is judged to be within the province of educational facilities planning as it is a planning consideration, in both design and materials. The services of such personnel will not only include guidance in materials and design for efficient maintenance, it will also deal with the training of personnel in effective procedures and programs. Such services are included as a follow-up service to maintain the functional effectiveness of an educational facility.

Facilities Planning Services

The following types of services are proposed for a state facilities planning section, based on preliminary conclusions presented. The services are organized in accordance with the categories developed in the preliminary conclusions.

Regulatory services. Suggested regulatory services are limited to a minimal amount of regulation regarding the facilities planning process. It is the conclusion of this investigation that functional facilities are the result of good planning. It is recommended that each educational facility construction project be required to show evidence of a planning process; such evidence should include comprehensive and long-range facilities surveys and educational specifications. Educational specifications must indicate that curriculum planning took place for the facility by a group representative of those intending to use it. It is also recommended that the planning process confirm the involvement of interests other than education in the long-range and major policy planning phases.

The majority of regulatory services provided are intended to insure the safety of the occupants using any educational facility. In this connection it is recommended that preliminary and final plans of all educational facilities be reviewed for structural and mechanical safety, fire safety, and sanitation. It is suggested that cooperative regulations be drafted with agencies performing these reviews to provide this service without duplicate effort and that persons acquainted with educational facilities planning help perform these reviews.

The adequacy of the site must be assured, particularly as related to the water supply, sewage and waste disposal, access, and natural drainage. It is recommended that the section make provisions, either through reports or site visitations, to determine the adequacy of the site.

Regulatory services associated with protection of the public investment tend to require quality in design and construction of facilities. These services are directed at preventing inadequate and inferior structures. For the protection of the public investment, it is recommended that the regulatory portion of such services require adequate long-range planning by the educational interests, in cooperation with other community interests affected by educational planning. Such long-range planning, together with educational specifications and design safety considerations, should provide functional, quality facilities. To avoid control of facility design, it is suggested that no minimal standards be adopted as regulation. They may be offered as guides but as guides that may be violated to allow the use of new designs and new concepts.

At the request of local school officials, the facilities planning section should provide a consultant to organize and direct long-range and comprehensive surveys. Required expertise not available in the local district may be recruited as dictated by the survey requirements. It is recommended that the section not staff itself with such expertise, rather utilize resources from outside the facilities planning section.

Leadership services. The majority of the services provided by a state educational facilities planning section will be leadership services. Leadership services, in the context of this investigation, may be described as services other than those required by regulation that will contribute to improved educational facilities, emphasizing activities that seek more effective responses to continuing problems.

The planning process suggests numerous services that enlarge upon associated regulatory services. For example, the section should have available guidelines to the functional planning process, as well as techniques of comprehensive surveys, facilities surveys, and long-range planning surveys. Consultative services relative to the fiscal problems of facility construction, such as capital outlay financing, bonding guidance, and the bidding processes should be available to the local district.

On request, the facilities planning section should provide criteria for the selection of architects and consultants, as well as have available guidelines explaining what services may be expected of such persons.

It is the function of the facilities planning section to provide assistance in the techniques of surveys and educational specifications to local administrators with facilities planning responsibilities.

The state facilities planning section should have state and/or local building code guides available and provide guidance for planning in terms of such codes.

The planning process culminates in curriculum planning translated into facilities requirements. Therefore, the planning is not complete until the staff has been oriented to the use of the facility in terms of the curriculum they helped plan. It is recommended that facilities consultants be responsible for organizing the training of the new staff to the rationale for the facility and its relationships to the planned curriculum.

It is necessary to provide evaluation of the planning process. This can be accomplished through the resulting facility and its effectiveness. It is recommended that an evaluation be conducted of all facilities in terms of their educational effectiveness for the programs they were designed to house. Such evaluations should take place one to three years after the facility has been in use and need not be limited to a single evaluation.

An area of service that will provide opportunity for leadership is state program planning for facilities. This area of service seeks to establish problems and trends in facilities planning as well as develop new facility design concepts. Typical services might be statewide studies to determine status, problems, and needs. For example, a major concern for investigation may be the urban educational facility and its unique problems. Such services will be primarily a leadership planning function, culminating in new services or new concepts.

Services, particularly leadership services, require a very competent and diverse staff to provide assistance to the great range of local facilities planning competencies. The staff will need to be particularly able in identifying and implementing leadership services to assist the large urban and suburban school districts with facilities planning.

Services of a leadership nature associated with the safety of occupants are primarily extensions of regulatory services. Such services include guidelines to assist local districts in meeting the regulatory requirements for safety. The section should provide criteria for determining whether remodeling or modernization is a practical consideration. It is recommended that section personnel make on-site visits at the request of local school officials concerning safety problems. The regulations these personnel administer should not encumber and limit design possibilities. Thus, section personnel will be involved in evaluating and, when appropriate, redefining the safety requirements they administer.

Staff members should make themselves available for consultation and advice regarding design problems encountered by architects and planning teams. They will also consult as needed with the planning team to assist in communicating educational concepts to the respective architects. The concern for adequate communications will result in a service to architects within the state through workshops designed to inform them how current curricular patterns can be interpreted into facility design.

Leadership services directed toward protection of the public investment are concerned primarily with maintenance and operation. These services are intended to provide local school systems with advisory services resulting in more efficient and economical maintenance and operation of school buildings, equipment, and grounds, with emphasis on the health and safety of those using the facility. Among the recommended services are maintenance and operations guides, and inservice training courses conducted throughout the state under the direction of the facility planning section. Section personnel will also assist local districts to acquire quality materials by providing suggested specifications and arranging for analysis of such materials at the request of local officials. They will also provide guidance in the organization of a maintenance and operations program, personnel policies, contractual and bidding procedures, and other such items as requested by local administrative officials. Guidance in specifying and purchasing furniture and equipment for all levels and areas of education should be available through the section staff. Personnel with competencies in equipment, as well as aspects of maintenance and operations, will become involved in the planning process subject to the needs of planning groups.

Finally, it would be desirable for the section to perform maintenance and operations research. If this is not practical, it is essential that the personnel associated with these activities be aware of such research conducted by other researchers.

Organization of the Model

Three basic areas of services have been suggested in the model: services related to the educational planning that precedes the design and construction of a facility, services to assure structural safety and facility flexibility, and services intended to assure the continued functional effectiveness of the completed facility. Primary responsibility for each of these areas was assigned to the respective internal sub-divisions of educational planning services, architectural and engineering services, and maintenance and operations services. The organization of such a section will depend a great deal on the size of the state and the services it requires. No matter what the size of the required staff, it is recommended that these three areas function as the basis for division of work. It is presumed that a large staff will not be required to adequately provide the suggested services at the current level of population in any state in the United States.

Aside from the basic division of work, a second internal division would be appropriate if the staff providing educational planning services grows very large. This recommendation suggests a division of work by geographic regions.

The internal organization for recommended facilities planning is depicted in Figure 2. It illustrates the functional division of work as related to the major task of the section, the process of planning educational facilities.

In questions relating to organization, it is recommended that the principles of organization articulated by Beach and Gibbs be utilized.[18] These principles may be summarized as follows:

1. Adaptability. The organization must be flexible and adaptable in order to permit adjustment to newly developing needs.

2. Coordination. The organization should facilitate the most effective coordination of effort toward fulfillment of the objectives of the organization. It should enable the executive to coordinate and energize all division of work. Coordination within the organization in its simplest terms is merely the effort of all concerned to agree in advance upon a goal and upon the road to be taken to reach it.

3. Continuity. The plan of organization should provide for reasonable continuity of policies and programs and at the same time provide opportunities for change.

4. Delegation of authority and responsibility. Authority should have a clearly defined process by which it projects itself throughout the organization so that everyone participates in the exercise of authority commensurate with his responsibilities. Each unit in the organization should have a clear definition of its functions and of the authority and responsibility of the individuals

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[18]Fred Beach and Andrew H. Gibbs, The Structure of State Departments of Education, Miscellaneous No. 10 (Washington: U. S. Office of Education, Government Printing Office, 1949), pp. 2-3.

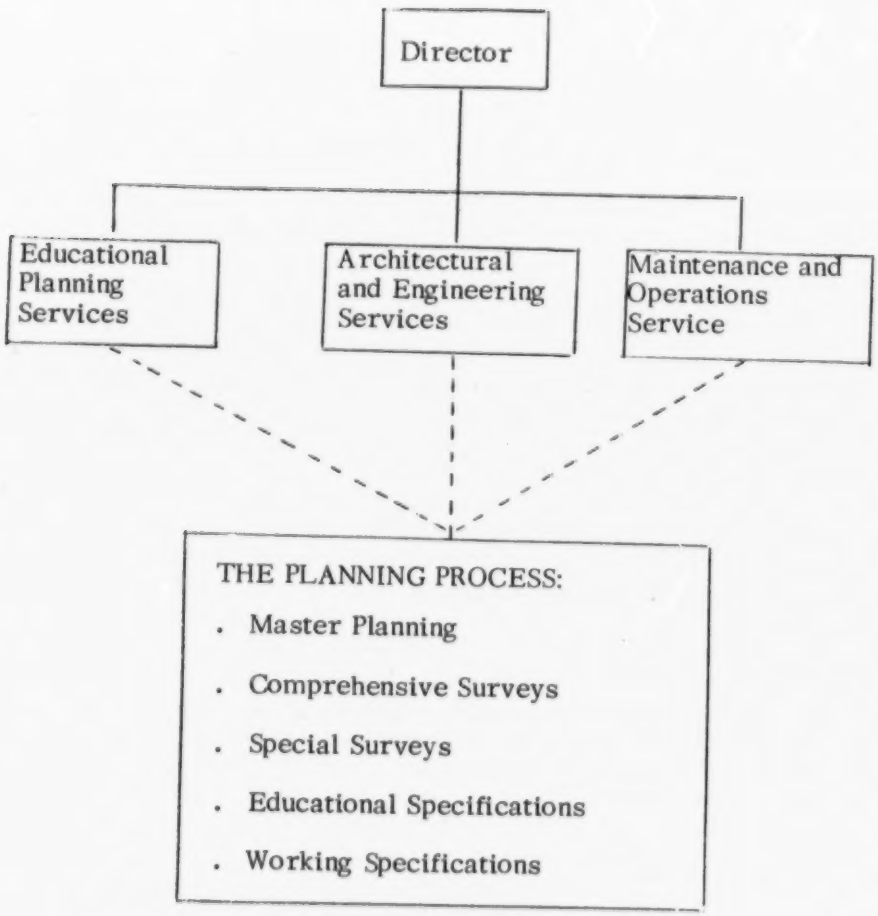

FIGURE 2

RECOMMENDED ORGANIZATION FOR FACILITIES PLANNING

comprising the unit to avoid overlapping, confusion, duplication, and lack of unity.

5. Democracy. The organization should facilitate participation in shaping policies by those affected by such policies. It should dignify the individual, develop his initiative, and enlist his voluntary intelligent cooperation. However, all policy determination should be made not by the particular staff member who later executes it but by those whose primary responsibility it is to secure balance and harmony in the management of the total organization.

6. Division of work. The organization should provide for the division of the total work into related parts which would insure the most effective utilization of the services of available personnel.

7. Economy. The plan of organization should make possible the greatest return for each dollar expended. In its broadest sense economy denotes any desirable saving which ultimately results in decreased costs or in obtaining more effective service at the same cost.

8. Leadership. The plan of organization should facilitate obtaining and holding the most able leadership and should stimulate leadership activities.

9. Span of control. The number of individuals in the organization directly responsible to one person should not be greater than can be supervised effectively. Although this number varies, it is suggested by students of organization that five or six persons whose work is interrelated are about as many as can be most effectively supervised by one person.

10. Simplicity. The organization machinery should be as simple as possible, consistent with the needs for coordination of the work of the whole enterprise.

11. Unity of Command. Final authority and responsibility should be vested in one body. It may be a board or an individual. A board should have a single executive officer. From the top to the bottom of the organization this principle requires that an employee be responsible to and receive instructions from only one superior.

12. Welfare. The organization should facilitate the attraction to, and the retention of, the most competent men and women in its service by providing, insofar as possible, conditions under which they can do their best job.

Staffing the Model

Three basic functions and four functional positions appear on the organization chart of the model. The three functions and three of the positions correspond, educational planning consultant, architectural and engineering consultant, and maintenance and operations consultant. The fourth functional position is the supervisory position of Director.

The position descriptions are directed toward tentative tasks and educational and professional experience. Growth of the professional staff should provide no more additional functions. An assistant director position and variations of the architectural and engineering consultant position may be anticipated. Plan review is a major activity of architectural consultants, and it is conceivable that this could become the only responsibility of some professionals within the architectural unit. It is also conceivable that one position might become partially administrative, but it is also likely that this position would still have consultative responsibilities and the position description would not change.

Director. The primary responsibilities of this position include:

1. Directing and supervising the work of facilities planning.
2. Participating in policy formulation for state policies relative to educational facilities planning.
3. Participating as required in the various functions of facilities planning.
4. Organizing and directing the program planning for facilities planning.

The position requires a master's degree and preferably a doctoral degree, with emphasis in educational administration and educational facilities planning. The Director must have had public

school administrative experience with responsibility for planning educational facilities. It would be desirable for some of the educational facilities experience to have been with the state education agency.

Educational planning consultant. The primary responsibilities of this position include:

1. Consulting with local districts relative to educational facilities needs, including the directing of surveys and educational specifications.

2. Participating, under direction, as part of the total program planning team for the facilities planning.

The position requires a master's degree in educational administration with specific training in educational facilities planning, with the doctorate preferred. This employee must have had responsibility for educational facilities planning in addition to experience at some level of public school administration.

Architectural and engineering consultant. The primary responsibilities of this position include:

1. Reviewing preliminary and final plans for conformance to minimal requirements.

2. Consulting with local planning groups regarding architectural, engineering, and design problems.

3. Participating, under direction, as part of the total program planning team for the facilities planning.

The position requires graduation from either an accredited school of architecture or engineering and license as an architect or engineer within the state. In addition, it requires architectural or engineering experience, with the design of educational facilities included in the experience. (This employee must also have a thorough acquaintance with education, with emphasis in curriculum development.)

Maintenance and operations consultant. The primary responsibilities of this position include:

1. Consulting with local administrative and maintenance and operations personnel relative to maintenance and operations programs and procedures.

2. Participating, under direction, as part of the total program planning team for the facilities planning.

The position requires a master's degree in school business administration or educational administration with experience as a public school maintenance and operations director. This employee must also have a knowledge of construction materials and techniques, of testing procedures, of time studies, of performance standards (both for materials and men), of job techniques, and sanitation.

CONCLUSIONS

Based on the information gathered from the literature and the case studies of educational facilities planning units in the states of California, Florida, Minnesota, North Carolina, and Washington, together with the reaction of the jury to the preliminary model, the following conclusions regarding the content of a facilities planning unit model are warranted:

1. The state education agency is an educational force that should assure educationally functional facilities within its boundaries.

2. Minimal state regulation is essential to the provision of adequate educational facilities.

3. It is necessary to assign priorities and establish direction for the educational facilities planning services that will be provided by state personnel.

4. It is necessary that the services provided by the facilities planning section relate to and center around the planning process.

5. Any planning that deals with educational facilities must be executed within the context of the total community.

6. A major element of the educational planning for a specific facility is comprehensive curriculum planning.

7. State education agency facilities planning personnel must function in a consultative capacity.

8. Facilities planning personnel must be aware of and make extensive use of facilities planning expertise, wherever it is found.

9. The facilities planning services provided by a state education agency need to include follow-up and evaluative services.

10. It is desirable that the state educational facilities planning section avoid responsibilities not directly related to the functional planning process.

11. It is a responsibility of the facilities planning section to provide maintenance and operations services.

Conclusions derived from this investigation indicate that a state education agency facilities planning unit ought to be fluid and adaptable. This flexibility allows the facilities planning unit to provide services reflecting a leadership role in the conceptualization of facilities to complement and support the changing educational process.

It is recommended that state education agencies utilize the recommended model, in the context of local circumstances, in the following ways: (1) States with no such services should adopt the investigation and the model as a guide in the development of an educational facilities planning unit, and (2) states currently providing facilities planning services should analyze their services, organization, and staffing patterns in terms of the model and institute changes that will improve their services.

The specific use of the model should be determined by such factors as the legislative and statutory authority given to such a unit, the sophistication of the existing facilities planning services within the state, the adequacy of the existing educational facilities, the availability of monies with which to plan and construct educational facilities, and the extent to which other agencies within the

state have regulatory or leadership responsibilities toward the planning of educational facilities.

Suggestions for the extension of this study include the following: (1) realistic assessments of the state education agency's potential contribution as an agent of leadership and change in education need to be continued, (2) studies to clarify the relationship of the facilities planning unit and its services toward the urban school setting and its unique problems, (3) studies that will differentiate between the services provided to school districts unable to employ adequate planning staff from those which are staffed for this function, (4) efforts to identify and clarify the relationships of a state educational facilities planning unit to other departments, agencies, and enterprises with related services and responsibilities.

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APPENDIX

SUMMARY OF LEGAL AUTHORIZATION AND FACILITIES PLANNING SERVICES PROVIDED BY THE STATE EDUCATION AGENCIES OF CALIFORNIA, FLORIDA, MINNESOTA, NORTH CAROLINA AND WASHINGTON

Facilities planning sections from California, Florida, Minnesota, North Carolina, and Washington were selected to participate in the investigation as subjects for individual case studies.

The criteria for this selection were desirable facilities planning services, as identified at a recent meeting of the Interstate School Building Service at Peabody College, Nashville, Tennessee.[19]

The case study information was gathered by means of (1) an examination of the Rules and Regulations approved by state boards of education in the participating states, (2) an examination of recent selected publications of the facilities planning sections, and (3) personal and/or telephone interviews with members of the state agency's professional staff in the participating states. The documents provided the primary data for the case studies. The personal and/or telephone interviews provided supplemental and clarifying information to the documents. To prevent misinterpretation or loss of information obtained in the interviews, each was tape recorded and analyzed subsequent to the interview.

This appendix presents summaries of the legislation and regulations authorizing the various educational facilities services provided by the participating state education agencies. Presentation of the authorizing legislation was intended to give the reader the legal environment within which the various states' educational facilities assistance programs operate. Based on recorded interviews, case studies were also compiled describing the facilities planning services provided by the state education agencies.

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[19]Interstate School Building Services, op. cit.

CALIFORNIA

Legal Authorization for Facilities Services

The legislature provided for schoolhousing services as early as 1927 in an independent agency, the Division of Schoolhouse Planning. The division was later incorporated into the organization of the state education agency as the Bureau of School Planning. The statutory powers and duties of the State Department of Education, as stated in the Education Code of California, include: establishing standards for school buildings; reviewing plans and specifications for districts which are required to submit them, and for other districts that request and pay for the services; approving plans and specifications or recommending changes in those not approved; making provisions by which governing boards of school districts, or their architects, may procure copies of standard specifications, plans, and building codes prepared by the Department; upon request, except from city boards of education, making surveys of building needs, suggesting plans for financing building needs, and collecting the cost of such surveys, exclusive of state employees' salaries, from the district; and employing necessary staff to carry out its functions.[20]

Relative to sites, it is the legal responsibility of the Department of Education to advise the governing board of each school district on the acquisition of new school sites and, after a study of available plots, to furnish in writing in the order of merit, a list of the approved locations, considering especially matters of educational merit, reduction of traffic hazards, and conformity to the organized regional plans as presented in the master plan of the planning commission having jurisdiction.[21]

If the proposed site of a new school is within two air line miles of an airport boundary, the governing board of the local district must give notice in writing to the Department of Education of the proposed acquisition, and furnish any required information. Upon notification by the Department of Education of the proposed site acquisition, the California Aeronautics Commission is required to investigate and report to the Department of Education within 25 days. The State Department of Education must investigate the proposed site and, within 30

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[20] West's Annotated California Codes, Vol. 28 (1959), Sec. 15302.

[21] Ibid.

days after receipt of the notice, must make a written report giving its recommendations to the governing board.[22]

The Department of Education also has the responsibility of establishing a pool of duplicate plans and specifications for one-story schoolhouses of not more than nine classrooms to meet the requirements of school districts located in rural areas of varying characteristics. Landscape suggestions may also be included in the plans.[23]

School districts choosing to use stock plans for small rural schools may secure them at cost from the Department of Education but in no case shall the cost for the plans and specifications be greater than two percent of the total cost of the project.[24]

Before letting contracts totaling five thousand dollars ($5,000) or more for the erection of a new school building, or for the addition to or alteration of an existing school building, the governing board of each school district, except districts governed by a city board of education, must submit plans to the State Department of Education and obtain written approval of the plans by the Department.[25]

Facility Planning Services

The Bureau of School Planning was organized in 1927 by the California State Legislature to fulfill certain functions related to schoolhouse planning. The tasks performed by the Bureau relate to all phases of the planning process, with the emphasis on educational planning that precedes the preliminary drawing of plans. Operating as an administrative extension of the local district, the staff of the Bureau strives to:

> Assist school districts in the selection of sites located in appropriate areas within the district.

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[22] Ibid., Sec. 15005.

[23] Ibid., Sec. 15401 and 15402.

[24] Ibid., Sec. 15403.

[25] Ibid., Sec. 15409.

Assist districts in the selection of architects who are qualified to perform the specific services required by the district.

Assist school districts in achieving higher educational and economic value for the dollar expended for school facilities.

Assist districts in financial planning for school construction.

Assist districts in the evaluation of school facilities.

Establish standards for school facilities.

Protect the public's investment in schoolhousing by making certain that school districts build buildings and purchase sites according to established standards.

Disseminate information through publications and presentations in school planning workshops concerning changing trends and technology related to school buildings.

Establish an organization of people, time, space, materials, and equipment necessary to provide services to school districts and to protect the public's investment in schoolhousing.[26]

Bureau personnel attempt to meet the objectives stated above by providing consultant services to all districts and by regulating the planning process in those districts over which the Bureau has statutory authority and responsibility. These services are provided through two elements.

The first--called the District Service and Regulatory Program--involves the consultant function directed toward an orderly planning process and the regulatory function of setting standards. The responsibility for providing the consultant services to school districts is assigned to individual field representatives. The field representative makes use of a team approach, utilizing other Bureau and State Department staff competencies.

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[26]Bureau of School Planning, Multi-Year Program Statement (Sacramento: State Department of Education, 1967), p. 2.

The Bureau's administration has determined that its role in setting standards should be one that encourages flexible criteria, enabling the standards to accommodate the change and developments that are continually occurring in what is known about school facilities design.

The second element--Education and Publications--focuses on a planned program of publications and various audio-visual media, as well as a variety of workshop and seminar education experiences. The publications and various audio-visual media, prepared in the School Planning Information Services unit of the Bureau, are intended to disseminate information in areas currently critical to educational facility design. The activities undertaken to communicate the latest processes and trends in educational facilities planning and construction are the responsibility of the respective field representatives.

Within this framework, Bureau personnel provide a variety of specific services, both regularly and by request. (See Figure 3.)

FLORIDA

Legal Authorization for Facilities Services

Section 18, Article XII, of the Florida Constitution, referred to as the School Capital Outlay Amendment, and as amended in the 1964 general election (thereafter referred to as the Amendment) provides for distributing motor vehicle license revenues among the county school systems for capital outlay and debt service at the rate of four hundred dollars ($400) per instruction unit per year.

In addition, the Amendment provides that the expenses of its administration may be paid from funds accruing under the Amendment. State Board of Education Regulations (Section 130-1.15) also provide for the establishment of the Capital Outlay and Debt Service Section of the State Department of Education, and the expansion of other sections "to handle other duties and responsibilities involved" in administering the Amendment.

Chapter 235, Florida Statutes, provides the authority for the existence of the Survey Section, the School Plant Planning Section, and the School Plant Management Section in the State Department of Education and indicates their responsibilities with respect to school plants.[27]

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[27]Florida Statutes Annotated (1944), Sec. 235.15 (Supp. 1967).

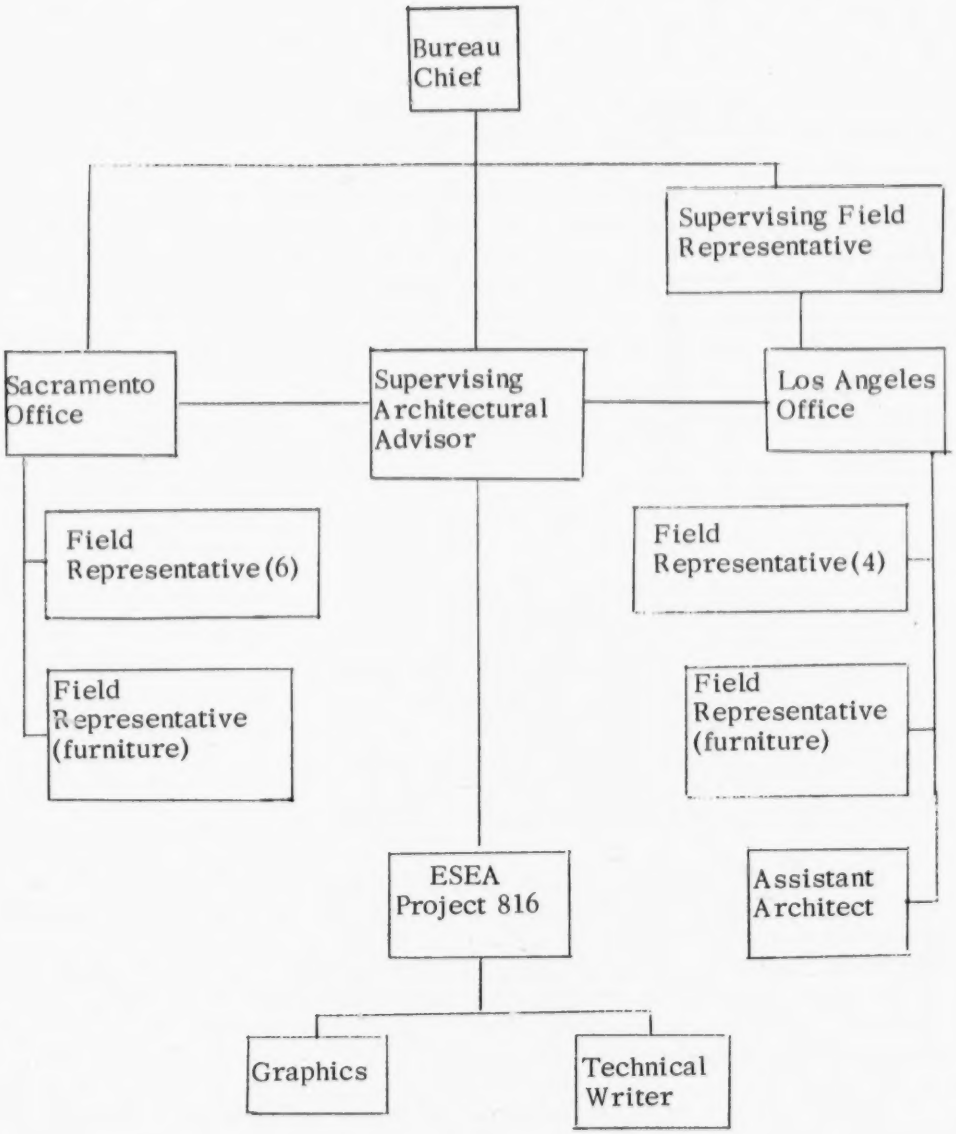

FIGURE 3

ORGANIZATION CHART OF THE BUREAU OF SCHOOL PLANNING, CALIFORNIA STATE DEPARTMENT OF EDUCATION

Facility Planning Services

The Division of School Facilities of the Florida State Department of Education is the existing organizational unit given the assignment to fulfill certain functions related to educational facilities planning. As early as 1920, the Superintendent of Public Instruction recognized a need to assist local school districts with facilities construction. The position of State School Architect later became part of the state agency's staff and has developed in scope and responsibility to a division including 23 professionals in five sections with direct responsibilities for facilities planning and maintenance.

The various sections provide a variety of services in meeting the statutory and administrative mandates related to facilities planning. The Architectural Facilities Planning Section and the Educational Facilities Planning Section in cooperation afford services (1) to see that school plant facilities are built in accordance with minimum standards, (2) to review and recommend improvements in preliminary plans, and (3) to make final inspections of projects paid for by School Capital Outlay Amendment funds to determine whether such funds were expended as provided by the Amendment and the State Board of Education regulations. In addition, they assist county school systems to improve school building planning and assist with research in related fields.

Personnel in the School Survey Section conduct surveys and approve projects under the provisions of the Amendment that require accrued funds be expended on projects only in the order of priority of needs as shown by an approved survey. Such surveys also form the basis for approval action by the Section for expenditures of School Construction Funds under the Additional Capital Outlay Act of 1957, Section 236.074 of the Florida Statutes.

The School Plant Management Section fulfills statutory obligations by providing the county school systems advisory services directed toward efficient and economical maintenance and operation of school buildings and grounds, with particular concern for the health and safety of those using the facility. Similar consultatory services are provided in all facets of insurance, including building, vehicular, and personnel insurance.

The remaining sections within the Division of School Facilities have responsibilities that are outside the specific statutory and regulatory phase of facilities planning and maintenance. The Schoolhouse Systems Project Section is a research and development unit working with the feasibility of systems-developed modular construction for educational facilities in Florida.

The Transportation Section administers state aid funds for school transportation and related responsibilities in training, licensing, purchasing, and research in school transportation. The remaining section, the Federal Higher Education Program Section, administers the higher education programs involving Federal assistance. (See Figure 4.)

MINNESOTA

Legal Authorization for Facilities Services

The supervisory and regulatory functions of the State Board of Education relating to educational facilities and sites were established in 1923 and are expressed in the Minnesota statutes as follows:

> The State Board shall prescribe rules for school sites and for the mechanical equipment, erection, enlargement, and change of school buildings. All plans and specifications for the erection, enlargement, and change of school buildings shall first be submitted to the State Department of Education for approval before the contract is let and no new school buildings shall be erected or any building enlarged or changed until the plans and specifications have been submitted to, and approved by, the State Department. The State Board shall include in such rules those made, from time to time, by the State Board of Health relative to sanitary standards for toilets, water supply, and disposal of sewage in public school buildings. In all other respects the authority to make rules for public school buildings shall be vested in the State Board. The State Board in approving construction plans may specifically qualify its approval as limited solely to physical plant, plans and specifications and it may specifically reserve its approval as to the advisability of construction from an educational program standpoint. Under such rules and procedures as the State Board shall prescribe, the State Department may condemn school buildings and sites which are unfit or unsafe to use as such.[28]

Based on the statutory statement, the State Board of Education has formulated regulations relating to school buildings and sites. The Minnesota State Department of Education has delegated the administration of the Statutory requirements and the State Board of Education Regulations to the School Facilities Planning Section. This section performs the following generalized functions to the degree staffing permits:

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[28]Minnesota Statutes Annotated (1945), Sec. 121.15.

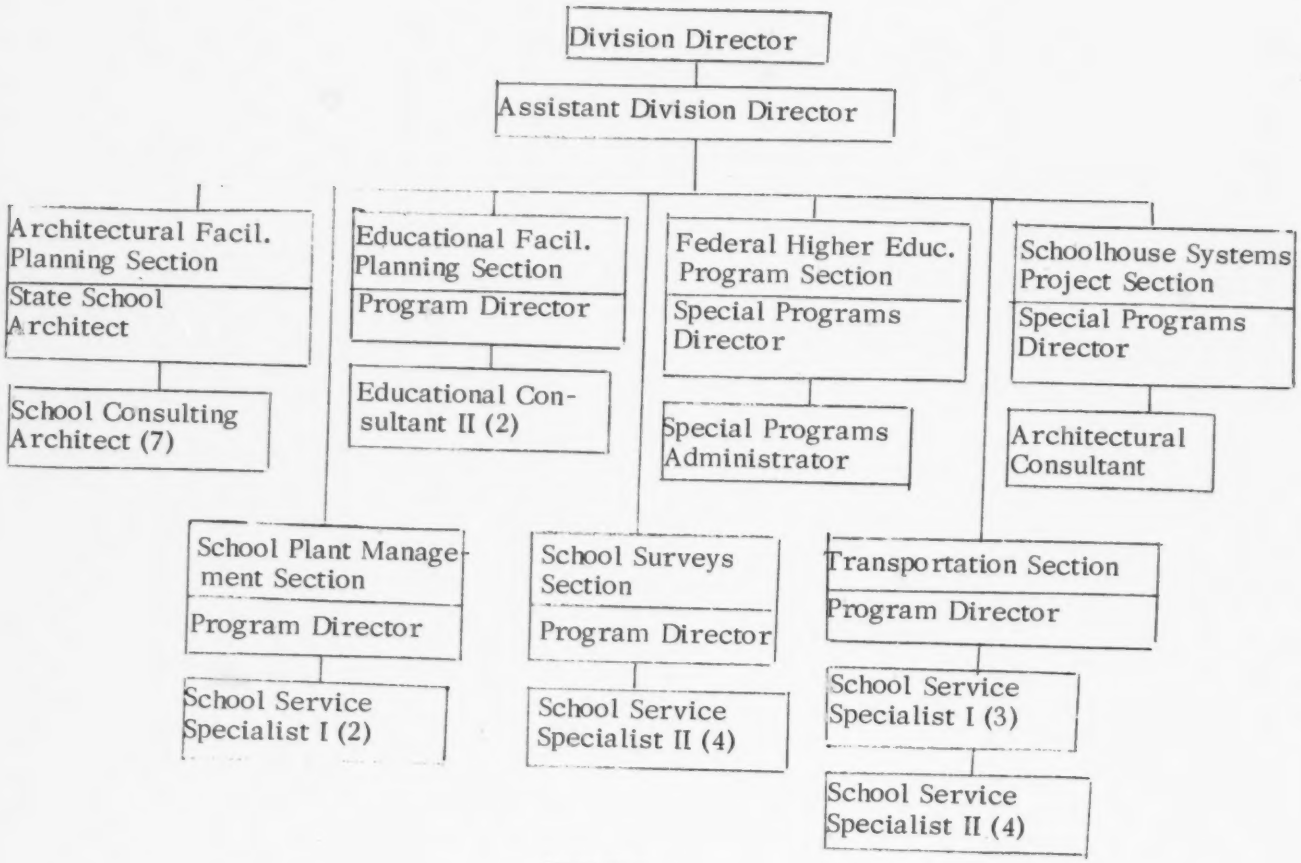

FIGURE 4

ORGANIZATION CHART OF THE DIVISION OF SCHOOL FACILITIES
FLORIDA STATE DEPARTMENT OF EDUCATION

a. The School Plant Planning Section, with the aid of department consultants, offers consultative assistance:

   1. In the planning and organizing of community and school plant surveys, including a review of the results in terms of immediate and long-term community needs.

   2. In evaluating and developing long-range educational programs as a basis for planning new school plants, often for districts enlarged through reorganization.

   3. In developing educational specifications for new school plants based upon national, state, and local community needs.

   4. In developing major steps and procedures for conducting a successful school plant construction program and the financing of the program.

b. Maintains a file of public school building plans and specification, cost data, and statistics relating to public school plant projects.

c. Through conferences, workshops, and correspondence advises school officials, architects, and laymen on matters related to site planning and school construction.

d. Prepares and distributes bulletins and manuals of standards helpful to local school officials, professional school planners, and laymen.

e. Reviews and approves final preliminary drawings for new school buildings, additions, or alterations to existing buildings.

f. Examines and approves final working drawings and specifications for new school buildings, additions, or alterations to existing buildings.

g. In cooperation with the State Department of Health, the State Department of Labor and Industry, and the State Fire Marshal, recommends to the Commissioner of Education,

following survey, that action be taken to condemn school buildings and sites which are unsafe and unfit for use.[29]

The section also performs the following general leadership functions. Educational facilities guidelines and standards are established by: (1) publishing the manual entitled, Guide for Educational Planning of School Buildings and Sites in Minnesota; (2) developing through research study, and the assistance of the best teachers available in respective subject areas, suggested layouts to be used as guides toward more effective and functional teaching and learning areas in school buildings; and (3) memorandums and letters communicating with school designing architects and engineers concerning problems and/or new ideas in any area of school plant concern.

Advisory committees and groups are regularly used to test or advance ideas of leadership. Section personnel also assist in the organization and successful continuance of state school plant interests, such as the Minnesota School Facilities Council, and participate in national and state school conferences to keep abreast of recent developments in facility planning. (See Figure 5.)

NORTH CAROLINA

Legal Authorization for Facilities Services

The State Board of Education may annually set aside and use out of the funds accruing in interests to the State Literary Fund a sum not exceeding seventeen thousand, five-hundred dollars ($17,500) to be used for giving directions in the preparation of proper plans for the erection of school buildings, in providing inspection of such buildings as may be erected in whole, or in part, with money borrowed from said fund, and such other purposes as said board may determine to secure the erection of a better type of school building and better

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[29] Documents Section, State Department of Administration, Guide for Educational Planning of School Buildings and Sites for Minnesota (St. Paul: Minnesota State Department of Education, 1966), p. 3.

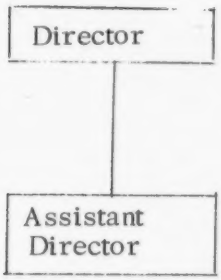

FIGURE 5

ORGANIZATION CHART OF THE SCHOOL FACILITIES
PLANNING SECTION, MINNESOTA STATE
DEPARTMENT OF EDUCATION

administration of said fund.[30]

The State Board is required to give specific services for this purpose. For instance, local boards of education cannot invest any money in any new building that is not built in accordance with plans approved by the State Superintendent as to structural and functional soundness, safety and sanitation, nor contract for more money than is made available for its erection.[31]

In the case of any school buildings erected, repaired, or equipped with any money loaned or granted by the state to any administrative unit, the State Board of Education, under such rules as it may deem advisable, may retain any amount not to exceed fifteen percent of said loan or grant, until such completed buildings, erected or repaired, in whole or in part, from such loan or grant funds shall have been approved by a designated agent of the State Board of Education.[32]

Facility Planning Services

For nearly 50 years the North Carolina Department of Public Instruction has provided personnel to assist the local school administrative unit with the planning of educational facilities. Currently titled the Division of School Planning, the 13 professionals and supporting staff of the division provide leadership throughout the state in educational planning. This leadership is part of the total response of the Department of Public Instruction to the North Carolina constitutional and statutory mandates, providing for a system of free public schools serving boys and girls of ages 6 to 21 years.

The process of educational planning ranges from the initial determination of an educational need to the implementation and evaluation of an improvement program. The elements of the process have been categorized into three major steps as follows:

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[30]The General Statutes of North Carolina, 1959, Cumulative Supplement, Sec. 115-108.

[31]Ibid., Sec. 115-130.

[32]Ibid.

Step 1: Identify and analyze educational and facility needs. This initial step in the planning process is considered the most important and must precede all other phases of the process. It involves two elements: the first is the self-evaluation program to determine local educational needs and an appropriate educational program to meet them, and the second is a thorough and objective educational survey of the educational program and facilities by specialists from outside the community.

Step 2: Adopt and implement a plant improvement program. If Step 1 indicates unmet physical needs, a plant improvement program should be initiated. This step involves the employment of specialists, or consultants, the development of educational specifications, the preparation of preliminary plans, and strategy to gain public acceptance of the improvement program.

Step 3: Complete and evaluate the educational planning process. This final step includes preparation of the final plans, selection of appropriate furniture and equipment, construction and utilization of the new facility, and evaluation of the total improvement program.[33]

The services provided by the Division of School Planning, available for public and nonpublic elementary and secondary education facilities planning, relate to the foregoing process. The three units within the Division, the Architectural, Educational and Engineering Services, represent a primary division of work, although personnel from each unit are likely to be involved in any phase of the educational planning process. It is the practice of the Division units and personnel to work as a team throughout the process, calling other resources whenever they are applicable.

The nature of the process requires varying degrees of staff commitment within the three steps. The most demanding element of the process in terms of staff time is the educational survey, which is very often performed in its entirety by Division and State Department personnel. This is the only point in the process where the Division personnel perform more than guidance, review, and consultative services.

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[33]Division of School Planning, Educational Planning, Publication No. 377 (Raleigh: North Carolina Department of Public Instruction, 1964), pp. 9-42.

The state provides financial assistance for the construction of public educational facilities through state bond sales. This program is administered by the Division of School Planning. It is a major source of statutory justification for the services being provided by the Division. It also plays an effective role in establishing a relationship between local districts and the Division that encourages the local people to use the state agency's planning resources, whether or not State or Federal funds are involved.

The state financial assistance program includes certain regulatory powers within the process of application. It is the administrative philosophy of the Division that the enforcement of its regulatory functions must still allow and encourage innovative designs and treatments. Thus, while codes and minimal standards do exist, the overall attempt of the Division is to interpret them as guides, offering direction rather than control. (See Figure 6.)

WASHINGTON

Legal Authorization for Facilities Services

In 1961, the legislature of the State of Washington passed an act providing funds for the construction of public school facilities. This act also prescribed the powers and duties of the State Board of Education relative to furnishing various services to the state's school districts. The services are intended to support and provide background information for the state grant program.

In this capacity the State Board of Education must conduct studies and surveys for the purpose of securing information related to: the kind and extent of school facilities required and the urgency of need for such facilities in districts seeking state aid; the ability of such districts to provide capital funds through local effort; and the need for improvement of school administrative units and school attendance areas among or within such districts.[34]

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[34]Revised Code of Washington, Sec. 28.47.680.

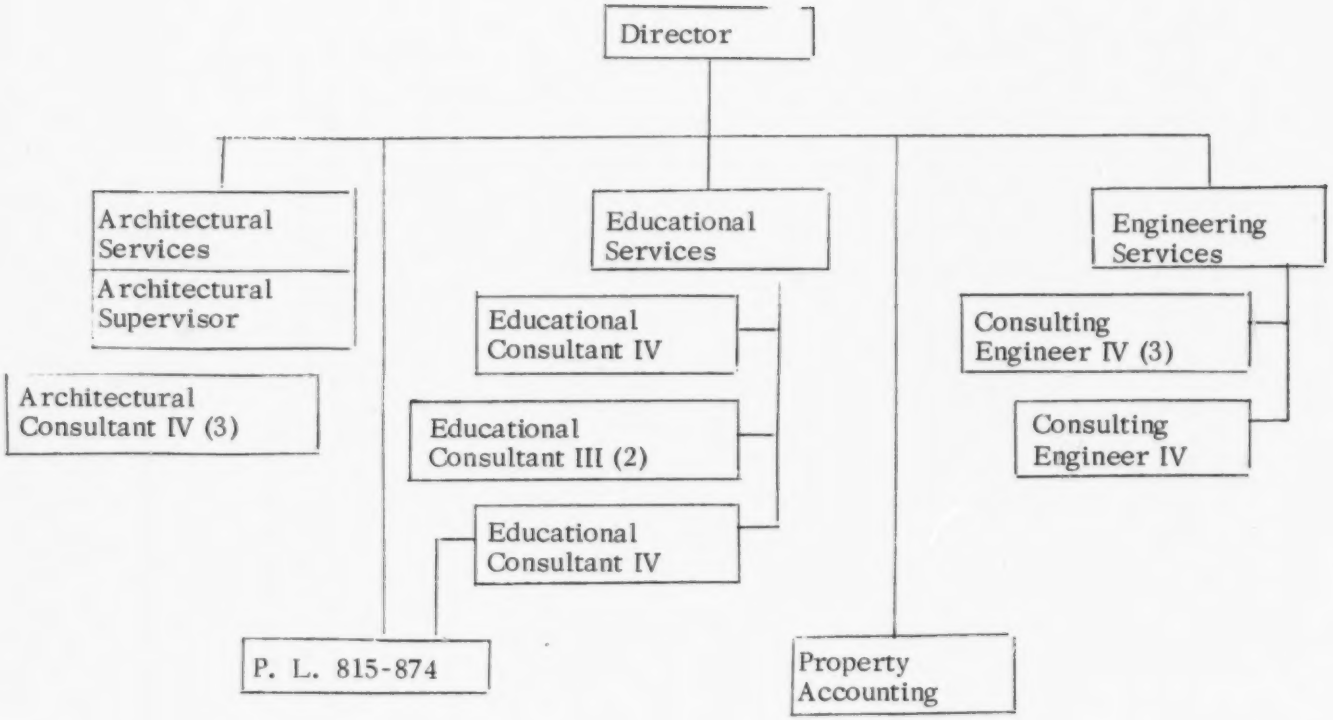

FIGURE 6

ORGANIZATION CHART OF THE DIVISION OF SCHOOL PLANNING,
NORTH CAROLINA STATE DEPARTMENT OF EDUCATION

It is also the duty of the State Board of Education, in consultation with the State Department of Health, to prepare a manual and/or to develop other materials for the information and guidance of local school district authorities and others responsible for and concerned with the selection of sites for and the designing, planning, maintenance, and operation of school plant facilities for the public schools.[35]

Consultative and advisory services to assist in the development of school building programs and the planning of school plant facilities must be provided by the State Board of Education to school districts seeking state aid in school construction.[36]

Whenever in the judgment of the State Board of Education economies may be affected without impairing the usefulness and adequacy of school buildings, it may prescribe rules and regulations and establish procedures governing the preparation and use of modifiable or standard plans for school building construction projects for which state assistance funds are allocated.[37]

In connection with state assistance for school construction, the State Board of Education must prescribe rules and regulations governing the administration, control, terms, conditions, and disbursement of allotments to school districts to assist them in providing school plant facilities.[38]

Applications by school districts for state assistance in providing school plant facilities must be made to the State Superintendent of Public Instruction in conformity with the rules and regulations of the State Board of Education.[39]

Relative to financing a school plant project, the estimate of total cost by the Board of Directors of the district is subject to review and approval by the State Board of Education. In order for a school district to receive the amount for which it qualifies under the formula for

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[35]Ibid., Sec. 28.47.690. [36]Ibid., Sec. 28.47.700.

[37]Ibid., Sec. 28.47.560. [38]Ibid., Sec. 28.47.630.

[39]Ibid., Sec. 28.47.680.

state assistance in financing a school building project, the need, therefore, must have been established to the satisfaction of the State Superintendent of Public Instruction.[40]

Additional state aid may be allowed if the State Superintendent of Public Instruction finds that such assistance is necessary in order to meet a school housing need resulting from the destruction of a building by fire or the condemnation of a school plant by properly constituted authorities. Additional state aid may also be allowed if there is a sudden and excessive increase in school population or overcrowding due to non-resident students or there is a deficiency in the capital funds of the district resulting from constructing approvable projects not state aid due to the inadequacy of state funds.[41]

Facility Planning Services

In accordance with the directives of the State Legislature, the majority of the facilities planning services provided by the Washington State Department of Education are in support of School Building Assistance Law. The intent of the law and the services are to support improved public education facilities. While the state encourages the local community to assume the responsibility for the planning and construction of educational facilities, the State Board of Education exercises certain advisory and regulatory functions where state matching funds are provided, as well as at the request of any school district within the state.

The primary function of the Facilities and Organization Section staff is that of cooperation with the local school districts throughout the entire facilities planning process. To that end, the state provides the following consultative services to school districts as its resources permit:

1. Assistance in planning, organizing, and reviewing results of surveys to determine school housing needs.

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[40] Ibid., Sec. 28.47.070.

[41] Ibid.

2. Comparative rating of possible school sites.

3. Advisory services in the conduct of school building projects.

4. Advice with regard to the details of schoolhouse planning from a functional viewpoint.

5. Advisory services in improving or modernizing existing school plants.

In addition, the Facilities Organization Section is charged with leadership functions. This unit has the responsibility to:

a. encourage improved design, giving special consideration to function, flexibility, expandability, modular design and other considerations which will result in better school plants;

b. insist on economical construction, design and allocation of space giving consideration to reducing maintenance costs, establishing the quality level of the plant at the point considered desirable by the citizens of the community;

c. encourage experimentation and research in the school building area which will improve design, provide economical costs at various quality levels, and provide a better environment for children; and

d. encourage and cooperate with school boards, administrators and lay groups to raise the quality of educational planning at the local level.[42]

See Figure 7.

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[42]School Building Section, "Objectives for the State School Building Section" (Olympia: School Building Section, pp. 1-2). (Mimeographed.)

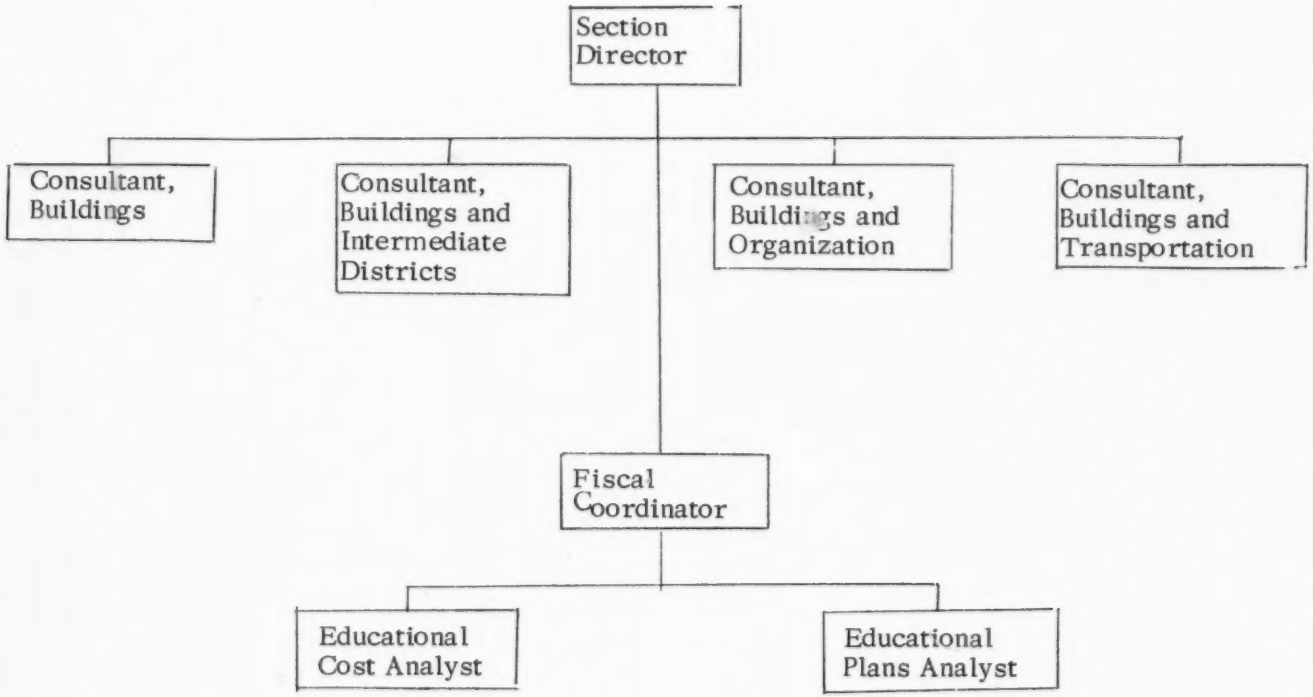

FIGURE 7

ORGANIZATION CHART OF THE FACILITIES AND ORGANIZATION SECTION, WASHINGTON STATE DEPARTMENT OF EDUCATION